

### REMARKS

The claims now pending in the application are Claims 8 to 11, 14, 15, 21 to 23, 25 to 27, 29 to 31 and 33 to 38, the independent claims being Claims 8, 10, 11, 33, 36 and 38. Claims 1 to 7, 12, 13, 16 to 20, 24, 28 and 32 have been cancelled herein. Claims 8 to 11, 14, 15, 21 to 23, 25 to 27 and 29 to 31 have been amended herein. Claims 33 to 40 are newly presented herein.

In the Official Action dated October 7, 2003, the drawings were objected to on formal grounds. The abstract was objected to on formal grounds. Claims 1 to 7 were withdrawn from consideration pursuant to the prior restriction requirement. Claims 8, 9, 11 to 13, 21, 23, 24, 29, 31 and 32 were rejected under 35 U.S.C. §102(b), as anticipated by U.S. Patent No. 4,764,702 (Mishiro), and Claims 17, 19 and 20 were rejected under 35 U.S.C. § 103(a), as unpatentable over the Mishiro '702 patent. Reconsideration and withdrawal of the objections and rejections respectfully are requested in view of the above amendments and the following remarks.

Initially, Applicant gratefully acknowledges the Examiner's indication that the application contains allowable subject matter, that Claims 10, 18, 22, 26 and 30 are allowed, and that Claims 14 to 16, 25, 27 and 28 are allowable over the prior art of record.

The rejections of the claims over the cited art respectfully are traversed. Nevertheless, without conceding the propriety of the rejections, Claims 8 to 11, 14, 15, 21 to 23, 25 to 27 and 28 to 31 have been amended herein more clearly to recite various novel features of the present invention, with particular attention to the Examiner's comments. Support for the proposed amendments may be found in the original application. No new matter has been added. Moreover, Applicant submits that the proposed amendments to the original claims merely are formal in nature, and do not narrow the scope of these claims.

Accordingly, Applicant submits that Claims 10, 22, 26 and 30 remain in condition for allowance, and that Claims 14, 15, 25 and 27 remain allowable over the prior art of record.

The present invention relates to a novel vibration wave driving apparatus. In one aspect, as recited in independent Claim 8, the vibration wave driving apparatus comprises a vibration element including a first elastic member, a second elastic member, a third elastic member and an electro-mechanical energy conversion element, the third elastic member and the electro-mechanical energy conversion element being disposed between the first elastic member and said second elastic member, and a rotor that is brought into contact with a frictional surface of the third elastic member. When a driving signal is applied to the electro-mechanical energy conversion element, the vibration element excites a first traveling wave at the frictional surface by generating bending vibrations which are displaced in a direction orthogonal to an axial direction of the vibration element and a second traveling wave at the frictional surface by generating bending vibrations of the third elastic member, and a circular or an elliptical movement is produced at the frictional surface by a vibration wave as a composite of the first traveling wave and the second traveling wave.

In another aspect, as recited in independent Claim 11, the vibration wave driving apparatus similarly comprises a vibration element including a first elastic member, a second elastic member, a third elastic member and an electro-mechanical energy conversion element, the third elastic member and the electro-mechanical energy conversion element being disposed between the first elastic member and the second elastic member, and a rotor that is brought into contact with a frictional surface of the third elastic member. The vibration element excites a bending vibration in a plane orthogonal to an axial direction of the vibration element in the third elastic member by generating bending vibrations which are displaced in a direction orthogonal to the axial direction.

Applicant submits that the prior art fails to anticipate the present invention. Moreover, Applicant submits that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

The Mishiro '702 patent relates to an ultrasonic motor device, and discloses an ultrasonic motor having a torsional vibrator and a diametrical or longitudinal resonator located at the node of the vibratory member and at right angles thereto. However, Applicant submits that the Mishiro '702 patent fails to disclose or suggest at least the above-discussed features of the present invention. Although the Mishiro '702 patent discloses a motor in which an elastic member 7 is disposed between two elastic members 4, 5, elastic member 7 is not disposed in contact with the rotor 13. Nowhere is the Mishiro '702 patent understood to disclose or suggest a motor in which a rotor is provided in contact with a frictional surface of a third elastic member which is disposed between a first elastic member and a second elastic member, as disclosed and claimed in the present application.

For the above reasons, Applicant submits that independent Claims 8 and 11 are allowable over the cited art.

Claims 9, 14, 15, 21, 23, 25, 27, 29 and 31 depend from Claims 8 and 11, respectively, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of its respective base claim, and is believed allowable in its own right. Individual consideration of the dependent claims respectfully is requested.

Newly presented Claims 33 to 40 have been added to provide Applicant with an additional scope of protection commensurate with the disclosure. No new matter has been added. Applicant believes Claims 33 to 40 also are allowable over the art of record.

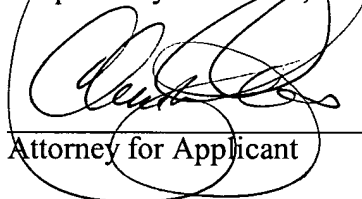
In formal matters, the specification and abstract of the disclosure have been amended as to matters of form, including English spelling, grammar, idiom, syntax and the like. No new matter has been added.

By separate paper filed concurrently herewith, Applicant has submitted a Request for Approval to Amend the Drawings and Submission of Substitute Formal Drawings. In that Request, Applicants have amended Figs. 10A, 10B and 11 to include the label --PRIOR ART--, as requested by the Examiner. No new matter has been added.

Applicant believes that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action, and submits that the application is in allowable form. Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience earnestly are solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	:	Examiner: J. Aguirrechea
TAKAYUKI TSUKIMOTO	)	
	:	Group Art Unit: 2834
Application No.: 10/047,108	)	
	:	
Filed: January 17, 2002	)	
	:	
For: VIBRATION ELEMENT AND	)	
VIBRATION WAVE DRIVING	:	
APPARATUS	)	January 7, 2003

**MAIL STOP NON-FEE AMENDMENT**

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

LETTER REQUESTING APPROVAL TO AMEND THE DRAWINGS  
AND SUBMISSION OF SUBSTITUTE FORMAL DRAWINGS

Sir:

In accordance with U.S. Patent and Trademark Office procedures, enclosed are informal drawings of Figures 10A, 10B and 11 (sheets 7 and 8), as originally filed, with proposed amendments shown in red ink.

As indicated by the changes in red ink, Applicant requests approval to amend the drawings as suggested by the Examiner, as follows:

IN FIGURES 10A, 10B AND 11

Add the label --PRIOR ART--, as shown.

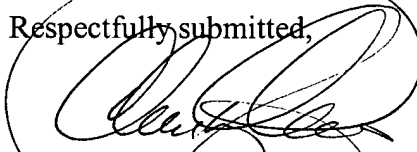
REMARKS

Applicant submits the proposed amendments to the drawings merely conform the drawings and the written description in the original disclosure, and therefore merely are formal in nature.

Also enclosed are corrected formal drawings (designated "Replacement Sheet"). Applicant requests that the corrected formal drawings be substituted for the corresponding original drawing sheet upon approval of the proposed changes.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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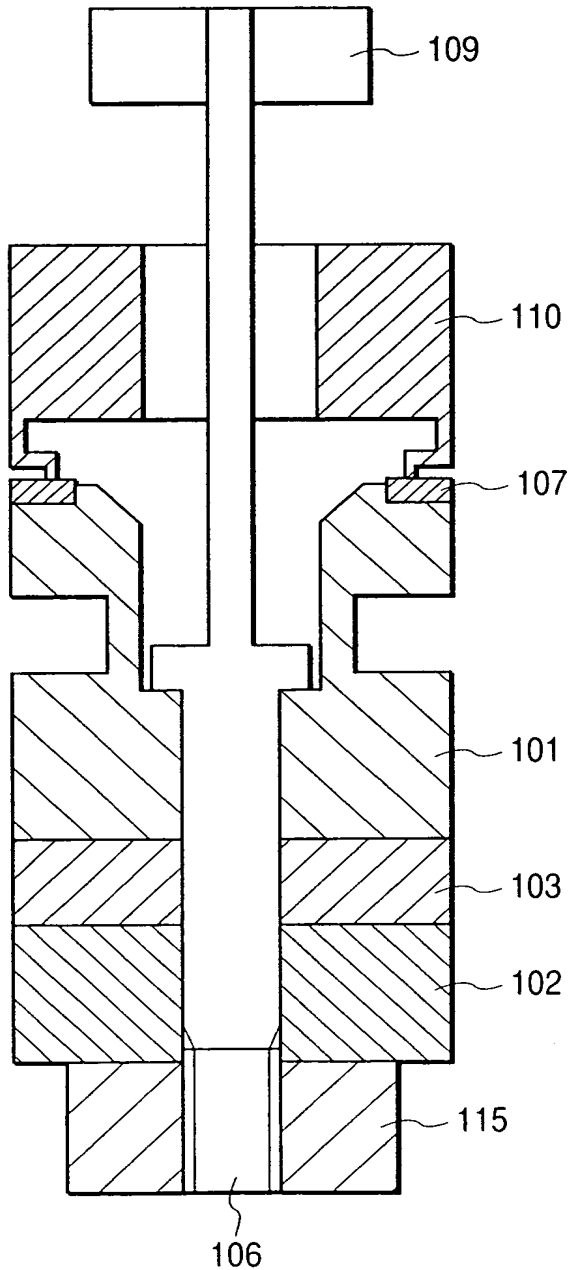
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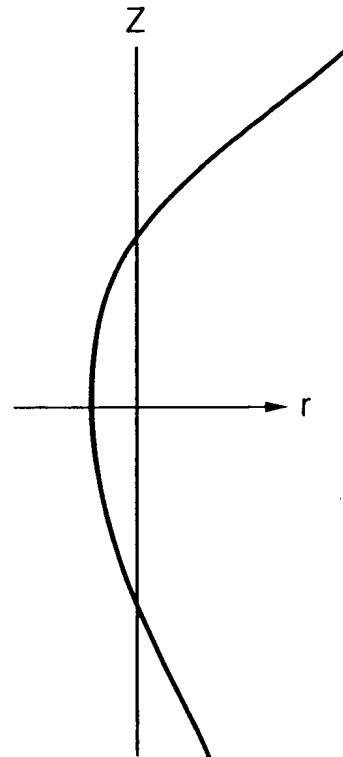
**FIG. 10A**

PRIOR ART



**FIG. 10B**

PRIOR ART







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# *FIG. 11*

Prior Art

